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ABSTRACT

This ERIC/SMEAC Newsletter contains a bibliography of 41 references concerning mathematics laboratories and 26 references on metrication that have been listed in RESEARCH IN EDUCATION, CURRENT INDEX TO JOURNALS IN EDUCATION, and other sources. (DT)

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Science, Mathematics, and Environmental Education
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Mathematics Education — Volume 5, Number 1

ED 076436

Where Are the Collections of ERIC Documents?

Also: Alaska, 1
Hawaii, 2
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Research in Education and **Current Index to Journals in Education** are (or should be!) in most large libraries. Often you can ascertain whether or not to order a document from the information provided by the descriptors and annotation for each document you've located in a search of **RIE** and/or **CIJE**. Sometimes, however, you can't be sure—or you want to scan the document but not buy it. You need a copy of the document.

Complete files of ERIC documents are located in centers scattered across the United States. The map will help you to approximate the site of the ERIC collection nearest to you. If you want a list of locations in your state, please write to us.

SE 016 172

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CENTER CLIPPINGS...

These documents are some of those announced in Research in Education during January, February, or March 1973.

ED 068 315 SE 014 717

Barczyk, Gloria J.

A Teacher's Approach to Adjusting Instruction in Elementary School Mathematics to Varied Ability Groups.

Pub Date [71]

Note—78p.

EDRS Price MF-$0.65 HC-$3.29

Descriptors—Behavioral Objectives, *Curriculum, Curriculum Guides, Elementary Grades, *Elementary School Mathematics, Grade 5, *Individualized Instruction, Instruction, *Instructional Materials, Lesson Plans, Mathematics Education, *Teacher Developed Materials, Worksheets

Identifiers—Systems Approach to Mathematics Instruction (SAM)

This paper is concerned with developing a mathematics curriculum for the fifth grade which uses a program of varied difficulty of instruction based on "A Systems Approach to Improving Mathematics Instruction" (SAM), a program developed in the Pittsburgh area. The first portion of the paper is a general discussion of facets involved in curriculum construction. The remainder of the paper details the specific objectives, the selecting and sequencing of content, and the instructional organization of a fifth grade mathematics course. Sample materials are included: a "Curriculum Suggested Pace" which lists the basic levels of instruction as well as suggested enrichment topics for each level; behavioral objectives for each basic level; and the complete lesson plans along with teacher-constructed materials for two of the topics covered in the curriculum (fractions and negative numbers). (DT)

ED 069 525 SE 015 336

Choate, Stuart A.

Activities with Ratio and Proportion.

Oakland County Schools, Pontiac, Mich.

Spons Agency—Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.

Pub Date Sep 70

Grant—OEG-68-05635-0

Note—135p.; Revised Edition

EDRS Price MF-$0.65 HC-$6.58

Descriptors—Curriculum, Instruction, *Instructional Materials, Low Ability Students, Mathematics Education, Objectives, *Percentage, *Ratios (Mathematics), *Secondary School Mathematics, Units of Study (Subject Fields), Worksheets

Identifiers—ESEA Title III

This instructional unit focuses on writing ratios and proportions in problem situations, solutions by means of proportions, and determination of percentages. A number of experiments are suggested and worksheets and discussion questions are included. The activities are oriented toward situations in which the students would probably have had some previous experience. A teacher's guide is also available. Related documents are SE 015 334, SE 015 335, and SE 015 337 through SE 015 347. This work was prepared under an ESEA Title III contract. (LS)

ED 067 397 TM 001 792

Williams, S. Irene Jones, Chancey O.

A Comparison of Interview and Normative Analysis of Mathematics Questions.

Educational Testing Service, Princeton, N.J.

Spons Agency—College Entrance Examination Board, New York, N.Y.

Report No—TDR-71-4

Pub Date Apr 72

Note—49p.

EDRS Price MF-$0.65 HC-$3.29

Descriptors—*College Entrance Examinations, Evaluation Methods, Interviews, *Item Analysis, Problem Solving, *Question Answer Interviews, Research Methodology, *Secondary School Mathematics, Student Participation, Test Construction, Test Results, *Tests

Identifiers—*College Board Mathematics Level 2

Answers to the following questions were sought in this study: (1) Does the interview technique provide information that cannot be obtained from the usual normative approach?; (2) Does the interview technique provide information leading to the revision of mathematics test questions? Are the revised questions better than the original version in specified ways?; and (3) Does the interview technique provide information about the extent to which the student has been exposed in a mathematics course to the topic, concept, or skill that is central to the correct solution of a particular question? The College Board Mathematics Level II pretest was administered to 10 students in a senior mathematics course, to 30 juniors in a mathematics honors course, and to 35 juniors and seniors in mathematics courses. Fifteen selected students were then interviewed as to their methods of problem solution. The original pretest was then administered to the pretest population, and a pretest consisting of 16 questions identical to those in the original pretest and 9 questions that were revisions was also administered. Results of the study show that the answer to question (1) above was "yes"; in answer to question (2), nine questions in the pretest (items 2, 10, 14, 18, 20, 21, 23, and 24) were revised; and the answer to question (3) was a definite "yes." Appendixes provide the Item Interview Record and Test Interview Record, Procedures Used in Carrying Out the Study, Score Distributions for Total Group and Interview Group, Item Analysis for Total Group, Item Analysis for Interview and Pretest Groups and Interview Results for Each Item and Graphs. (DB)

ED 069 496 24 SE 015 142

Lankford, Francis G., Jr.

Some Computational Strategies of Seventh Grade Pupils. Final Report.

Virginia Univ., Charlottesville. School of Education.

Spons Agency—National Center for Educational Research and Development (DHEW/OE), Washington, D.C.

Bureau No—BR-2-C-013

Pub Date Oct 72

Grant—OEG-3-72-0035

Note—96p.

EDRS Price MF-$0.65 HC-$3.29

Descriptors—*Algorithms, Fractions, Grade 7, Learning, *Mathematics Education, *Research, Secondary School Mathematics, Whole Numbers

Identifiers—*Computation, Diagnostic Interviews

One hundred seventy-six seventh grade students underwent a recorded interview where each was given a set of computational exercises and asked to say aloud his thinking as he worked them. The most frequently used strategies in computations with whole numbers and fractions are described in detail, an analysis of the nature of wrong answers is included, and characteristics of good and poor computers are listed and discussed. Thirteen conclusions are given, covering computational strategies, vertical vs. horizontal problem arrangement, mathematical vocabulary of students, estimating answers, and the technique of using recorded interviews in research. The computation problems given to the students are included in the report, and the appendices list all the wrong answers given with the accompanying verbal description by the student. (DT)

ED 069 469 SE 014 567

Basic Mathematics Machine Calculator Course.

Windsor Public Schools, Conn.

Pub Date 69

Note—533p.

EDRS Price MF-$0.65 HC-$19.74

Descriptors—*Algorithms, Grade 10, Instruction, *Instructional Materials, Laboratory Procedures, Mathematical Applications, Mathematics Materials, Practical Mathematics, Problem Solving, *Secondary School Mathematics, *Workbooks

Identifiers—Desk Calculators, *General Mathematics

This series of four text-workbooks was designed for tenth grade mathematics students who have exhibited lack of problem-solving skills. Electric desk calculators are to be used with the text. In the first five chapters of the series, students learn how to use the machine while reviewing basic operations with whole numbers, decimals, fractions, and percents. The rest of the chapters present word problems in simple consumer mathematics, business activities, installment buying, banking, stocks and bonds, insurance, taxes, and utilities. A chapter on the use of formulas is included. (DT)

"Mini-bib": Mathematics Laboratories

Since we have received a number of requests on some topics, we have decided to include lists of references for such topics in issues of this Newsletter. These will be in the form of a "mini-bibliography:" a short, selected list of pertinent documents. Some of the documents in this "mini-bib" on mathematics laboratories were located through a search in **Research in Education** and **Current Index to Journals in Education,** using such descriptors as "Laboratories," "Laboratory Procedures," and "Activity Learning," and cross-checking to include only references which also have mathematical descriptors. (For those who want to do a more thorough search, descriptors such as "Manipulative Materials" and "Instructional Materials" should also be considered: these will provide information on many materials which might be useful in a mathematics laboratory situation.)

Barson, Alan. The Mathematics Laboratory for the Elementary and Middle School. **Arithmetic Teacher** 18: 565-567; December 1971.

Bernard, Richard Paul. The Historical Development of the Laboratory Approach to Elementary School Mathematics. (Indiana University, 1972.) **Dissertation Abstracts International** 33A: 5028; March 1973.

Beuthel, Donald G. and Meyer, Phyllis I. A Regular Classroom Plus a Mathematics Laboratory. **Arithmetic Teacher** 19: 527-530; November 1972.

Boucher, Jim. New Mathematics in the Primary School. **Mathematics in School** 1: 10-12; March 1972.

Brousseau, Andre R. Mathematics Laboratories: Should We or Should We Not? **School Science and Mathematics** 73: 99-105; February 1973.

Brydegaard, Marguerite and Inskeep, James E., Jr. **Mathematical Experiencing.** Washington: American Association of Elementary, Kindergarten, and Nursery Educators, 1972. (ERIC: ED 062 168. Available only on microfiche from EDRS.)

Cohen, Martin Seymour. A Comparison of Effects of Laboratory and Conventional Mathematics Teaching Upon Underachieving Middle School Boys. (Temple University, 1970.) **Dissertation Abstracts International** 31A: 5026-5027; April 1971.

Deans, Edwina. The Laboratory Approach to Elementary Mathematics. **Today's Education** 60: 20-22; February 1971.

Dittmer, Karen Ann. Guidelines for Developing a Mathematics Laboratory. (University of Alabama, 1971.) **Dissertation Abstracts International** 32A: 5083-5084; March 1972.

Ewbank, William A. The Mathematics Laboratory: What? Why? When? How? **Arithmetic Teacher** 18: 559-564; December 1971.

Ferrell, Phyllis C. **A Developmental Program to Non-Grade Mathematics K-12.** Arlington Heights, Illinois: Elk Grove Training and Development Center, June 1969. (ERIC: ED 037 336; 105 p.)

Finnell, Clyde Allen. A Laboratory Mathematics Approach: An Evaluation of Cognitive and Affective Learning in Ninth Grade Mathematics Classes in the United States Dependents Schools, European Area. (University of Southern California, 1972.) **Dissertation Abstracts International** 33A: 4053-4054; February 1973.

Fitzgerald, William M. **About Mathematics Laboratories.** East Lansing: Michigan State University, 1972. (ERIC: ED 056 895, 33 p.)

Greenes, Carole E.; Willcutt, Robert E.; and Spikell, Mark A. **Problem Solving in the Mathematics Laboratory:** How To Do It. Boston: Prindle, Weber & Schmidt, Inc., 1972.

Higgins, Jon L. **The Mathematics Through Science Study: Attitude Changes in a Mathematics Laboratory.** SMSG Reports, No. 8. Stanford: Stanford University, 1969. (ERIC: ED 064 174; 64 p.)

Higgins, Jon L. Attitude Changes in a Mathematics Laboratory Utilizing a Mathematics-Through-Science Approach. **Journal for Research in Mathematics Education** 1: 43-56; January 1970.

Hollis, Loye Y. **A Study of the Effect of Mathematics Laboratories on the Mathematical Achievement and Attitude of Elementary School Students.** Final Report, National Center for Educational Research and Development, July 1972. (ERIC: ED 066 315; 24 p.)

Howard, Vivian Gordon. Teaching Mathematics to the Culturally Deprived and Academically Retarded Rural Child. (University of Virginia, 1969.) **Dissertation Abstracts International** 31A: 294-295; July 1970.

Johnson, Randall Erland. The Effect of Activity Oriented Lessons on the Achievement and Attitudes of Seventh Grade Students in Mathematics. (University of Minnesota, 1970.) **Dissertation Abstracts International** 32A: 305; July 1971.

Kidd, Kenneth P.; Myers, Shirley S.; and Cilley, David M. **The Laboratory Approach to Mathematics.** Chicago: Science Research Associates, Inc., 1970.

Kieren, Thomas E. Activity Learning. **Review of Educational Research** 39: 509-522; October 1969.

Kieren, Thomas E. Manipulative Activity in Mathematics Learning. **Journal for Research in Mathematics Education** 2: 228-234; May 1971.

Krulik, Stephen. **A Mathematics Laboratory Handbook for Secondary Schools** Philadelphia: W. B. Saunders Co., 1972. (ERIC: ED 059 061; document not available from EDRS.)

Matthews, Geoffrey and Comber, Julia. Mathematics Laboratories. **Arithmetic Teacher** 18: 547-550; December 1971.

May, Lola J. Math Lab. **Grade Teacher** 89: 103-105, 167; September 1971. 89: 64-66; October 1971. 89: 44-45, 71; November 1971.

McClure, Clair Wylie. Effectiveness of Mathematics Laboratories for Eighth Graders. (The Ohio State University, 1971.) **Dissertation Abstracts International** 32B: 4078; January 1972.

Miller, George R. The Use of Formative Evaluation Procedures in the Development of a Mathematics Laboratory. Paper presented at the Annual Meeting of the American Educational Research Association, 1972. (ERIC: ED 063 341; 25 p.)

Nowak, Betty Adams. A Study to Compare the Effects of Mathematics Laboratory Experiences of Intermediate-Grade Students on Achievement and Attitudes. (Brigham Young University, 1972.) **Dissertation Abstracts International** 33A: 2697; December 1972.

Osborne, Alan R. Lab Oratory and the Generalization Gap. **Arithmetic Teacher** 18: 545-546; December 1971.

Porteus, D. R. Activity-Centered Learning in a Mathematics Laboratory. **Australian Mathematics Teacher** 28: 5-11; March 1972.

Reys, Robert E. and Post, Thomas R. **The Mathematics Laboratory; Theory to Practice.** Boston: Prindle, Weber & Schmidt, Inc., 1973.

Ropes, George Hardcastle. The Effects of a Mathematics Laboratory on Elementary School Students. (Columbia University, 1972.) **Dissertation Abstracts International** 33A: 4250; February 1973.

Schippert, Frederick Arthur. A Comparative Study of Two Methods of Arithmetic Instruction in an Inner-City Junior High School. (Wayne State University, 1964.) **Dissertation Abstracts** 25: 5162-5163; March 1965.

Silbaugh, Charlotte Vance. A Study of the Effectiveness of a Multiple-Activities Laboratory in the Teaching of Seventh Grade Mathematics to Inner-City Students. (The George Washington University, 1972.) **Dissertation Abstracts International** 33A: 205; July 1972.

Vance, James H. The Effects of a Mathematics Laboratory Program in Grades 7 and 8—An Experimental Study. Unpublished doctoral Dissertation, University of Alberta, 1969.

Vance, James H. and Kieren, Thomas E. Laboratory Settings in Mathematics: What Does Research Say to the Teacher? **Arithmetic Teacher** 18: 585-589; December 1971.

Vance, James H. and Kieren, Thomas E. Mathematics Laboratories—More than Fun? **School Science and Mathematics** 72: 617-623; October 1972.

Whipple, Robert M. A. Statistical Comparison of the Effectiveness of Teaching Metric Geometry by the Laboratory and Individualized Instruction Approaches. (Northwestern University, 1972.) **Dissertation Abstracts International** 33A: 2699-2700; December 1972.

Wilkinson, Jack Dale. A Laboratory Method to Teach Geometry in Selected Sixth Grade Mathematics Classes. (Iowa State University, 1970.) **Dissertation Abstracts International** 31A: 4637; March 1971.

Wilson, Lois Fair. **The Discovery Approach to Mathematics.** February 1971. (ERIC: ED 059 089; 45 p.)

(No author cited.) **The Secondary Mathematics Laboratory Strategy Manual.** Titusville, Florida: Brevard County Board of Public Instruction, June 1970. (ERIC ED 048 143; 58 p.)

News Notes

Plan Ahead . . .

A session on "Have You Met ERIC?" is scheduled for the NCTM Name-of-Site Meeting in Fort Worth, August 15-17, 1973. Marilyn N. Suydam will provide this introduction. A workshop on the use of ERIC is scheduled for the NCTM Name-of-Site Meeting in Atlanta, Georgia, October 25-27, 1973. Jon L. Higgins and F. Joe Crosswhite of ERIC/SMEAC will conduct this session, designed to teach the specifics of using the ERIC system. At other meetings look for the ERIC booth in the materials display. It made its first appearance at the NCTM Annual Meeting in Houston, April 25-28, 1973.

In the Meantime . . .

An article by Jon L. Higgins in the March 1973 issue of **The Arithmetic Teacher** will give you a good start in learning more about ERIC. It's titled, "How Thirty Measuring Sticks, Twenty-nine Kids, and I Started Using Research in the Classroom." Hope you enjoy reading it!

MicroLibraries of ERIC Mathematics Education Documents Available

Basic collections of ERIC mathematics education documents in microfiche format will soon be available from Microfiche Systems Corporation. Selected in cooperation with ERIC/SMEAC, the collections will contain full-text documents announced in **Research in Education** between 1966 and 1972. The Elementary collection will contain 450 documents; the Secondary collection, 500 documents; and the Higher Education collection, 400 documents. A tri-level combined collection will also be offered. Similar MicroLibraries for science education and environmental education will also be available.

Prices and ordering information for MicroLibraries may be obtained by writing: Microfiche Publications Division, Microfiche Systems Corporation, 305 East 46th Street, New York, New York 10017.

Compilations of Mathematics Education Document Abstracts Available

A collection of abstracts of mathematics education documents that have appeared in **Research in Education** from 1966-1972 will soon be available from Education Associates, Inc. Developed in cooperation with ERIC/SMEAC, the compilation will feature subject and author indexes similar to those found in RIE. The compilation will enable users to conduct rapid manual searches of a data base of over 2000 ERIC mathematics education documents. Similar compilations for science education and environmental education document abstracts will also be available.

Prices and ordering information for the three compilations may be obtained by writing: Education Associates, Inc., P. O. Box 441, Worthington, Ohio 43085.

Price Increases . . .

Changes in the prices of subscriptions to **Research in Education** and **Current Index to Journals in Education** have been announced. **Research in Education** (12 issues per year) is now $38, domestic; $47.50; foreign. Single copies are $3.25 each. (The address for **RIE** is: Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.) **Current Index to Journals in Education** (12 issues per year) is now $44, domestic; semi-annual and annual cumulative indexes, $45. Single copies are $3.50. Foreign subscriptions have postage added. (The address for **CIJE** is: CCM Information Corporation, 866 Third Avenue, New York, New York 10022.)

This One is Still Free!

We hope you realize that this Newsletter is still free! If you know of someone whose name is not on our mathematics education newsletter mailing list, please send us the name and address (including zip code).

If you have any announcements which would interest our readers, please send them, too. We'll include them whenever possible. (Please direct them ATTN: Marilyn N. Suydam.)

Metrication: Be Prepared!

While Congress has not yet passed the final bill on metrication, teachers are among those anticipating the change in our system of measurement. To help you prepare, here are some pertinent documents and references.

Documents listed in **Research in Education** include the following:

DeSimone, Daniel V. **A Metric America: A Decision Whose Time Has Come.** Washington: National Bureau of Standards, July 1971. (ERIC: ED 055 884; 192 p. Also available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402; Catalog No. C 13.10/345, $2.25.)

This report evaluates and distills the findings of the United States Metric Study in which thousands of individuals, firms, and organized groups representative of our society participated.

Related reports on the Metric Study are:

ED 055 890 **U.S. Metric Study Interim Report: Education.** (210 p. Also available from GPO; Catalog No. C 13.10/345-6, $1.75.)

ED 065 340 **U.S. Metric Study Interim Report: Federal Government: Civilian Agencies.** (325 p. Also available from GPO; Catalog No. C 13.10/345-2, $2.25.)

ED 065 341 **U.S. Metric Study Interim Report: Nonmanufacturing Businesses.** (192 p. Also available from GPO; Catalog No. C 13.10/345-5, $1.50.)

ED 065 342 **U.S. Metric Study Interim Report: The Consumer.** (147 p. Also available from GPO; Catalog No. C 13.10/345-7, $1.25.)

ED 065 343 **U.S. Metric Study Interim Report: Testimony of Nationally Representative Groups.** (175 p. Also available from GPO; Catalog No. C 13.10/345-12, $1.50.)

ED 068 326 **U.S. Metric Study Interim Report: A History of the Metric System Controversy in the United States.** (308 p. Also available from GPO; Catalog No. C 13.10/345-10, $2.25. [Also cited as ED 069 885.])

Lighthill, M. J. and Others. Metric Units in Primary Schools. London: Royal Society, April 1970. (ERIC: ED 052 992; document not available from EDRS.) Although this pamphlet is intended as background material for teachers in English primary schools, the educational implications of the change and the lists of apparatus suitable for use with children up to 14 years of age are sufficiently general for use in other countries introducing the metric system.

The April 1973 issue of **The Arithmetic Teacher** is devoted to articles on metrication. Included are:

Hallerberg, Arthur E. The Metric System: Past, Present—Future? (pages 247-255)

King, Irv and Whitman, Nancy. Going Metric in Hawaii. (pages 258-260)

Williams, Elizabeth. Metrication in Britain. (pages 261-264)

Helgren, Fred J. Schools Are Going Metric. (pages 265-267)

Viets, Lottie. Experiences for Metric Missionaries. (pages 269-273)

Vervoort. Inching Our Way Towards the Metric System. (pages 275-279) (Also in the April 1973 issue of **The Mathematics Teacher,** pages 297-302)

Immerzeel, George and Wiederanders, Don. IDEAS. (pages 280-287)

The May 1973 issue of **The Arithmetic Teacher** contains additional articles on metrication.

Other articles cited in **Current Index to Journals in Education** which have the descriptor "Metric System" are:

Ballew, Hunter. Overcoming the Resistance to the Metric System. **School Science and Mathematics** 73: 177-180; March 1973.

Edson, Lee. Metrication: New Dimensions for Practically Everything. **American Education** 8: 10-14; April 1972.

Immerzeel, George and Wiederanders, Don. IDEAS. **Arithmetic Teacher** 19: 362-373; May 1972.

Murphy, Mary Oellerich and Polzin, Maxine A. A Review of Research Studies on the Teaching of the Metric System. **Journal of Educational Research** 62: 267-270; February 1969.

Shaw, R. W. Going Metric—Going Decimal. **Mathematics in School** 1: 23-24; November 1971.

West, Tommie A. The Case for Metric Units. **School Science and Mathematics** 72: 600-602; October 1972.

The April 1973 issue of the "Bulletin for Leaders" of the National Council of Teachers of Mathematics lists the following sources of information on the metric system:

- A brochure entitled "Think Metric" has been produced by the National Education Association in cooperation with the National Council of Teachers of Mathematics. Designed for parents, it covers reasons for metrication, general relationships between the English and metric systems, how metrication will affect the schools, and how parents can help at home and at school. "Think Metric" (stock number 051-02242) may be ordered prepaid from American Education Week, P.O. Box 327, Hyattsville, Maryland 20781, at thirty copies for $2.25. Shipping and handling charges will be added to billed purchase orders. Make checks payable to the National Education Association.
- "All You Will Need to Know about Metric" is a new information sheet that may be reproduced or requested in reasonable quantities from the Metric Information Office of the U.S. Department of Commerce, National Bureau of Standards, Washington, D.C. 20234.
- The National Bureau of Standards Special Publication 304A (revised October 1972), a "Brief History of Measurement Systems with a Chart of the Modernized Metric System," is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for 25c. A full-scale wall chart, NBS Special Publication 304, is available from the same office for 55c.
- A joint committee of the American Association of School Librarians (AASL) and the NCTM has prepared a selected bibliography of instructional aids for metrication. This resource is available from AASL, 1201 Sixteenth Street NW, Washington, D.C. 20036, for 20c.

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Publications on the Way . . .

The following publications will be available from ERIC/SMEAC some time after May 15:

Recent Research in Cognition Applied to Mathematics Learning by M. C. Wittrock

Ability and Creativity in Mathematics by Lewis R. Aiken, Jr.

Research in Mathematics Education Reported in 1972 by Marilyn N. Suydam and J. Fred Weaver

Research Reporting Sections: National Council of Teachers of Mathematics 51st Annual Meeting edited by Jon L. Higgins

Use of Computers in Mathematics Education Resource Series:

I. **Computer Innovations in Education** by Andrew R. Molnar
II. **Computer-Extended Problem Solving and Enquiry** by Larry L. Hatfield
III. **Bibliography**
  Part 1. General Educational Role
  Part 2. Languages and Programming
  Part 3. Mathematics Instruction Applications
IV. **Research on Computers in Mathematics Education** by Thomas E. Kieren

For specific information on the cost of each of these, please write (after May 15) to Marilyn N. Suydam, ERIC/SMEAC.

Among publications scheduled later in the year are the proceedings of the Northwestern University symposium on "Cognitive Psychology and the Mathematics Laboratory."

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